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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,880	03/30/2007	Mikio Hasegawa	135292-0001	5964

35684 7590 01/27/2009

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EXAMINER	
NICKERSON, JEFFREY L	

ART UNIT	PAPER NUMBER
2442	

NOTIFICATION DATE	DELIVERY MODE
01/27/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/579,880	HASEGAWA ET AL.	
	Examiner	Art Unit	
	JEFFREY NICKERSON	2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2007* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to Application No. 10/579,880 filed nationally 30 March 2007 and internationally on 19 November 2004. The amendment presented on 09 October 2008, which provides change to claims 1-5, 7-12, 14 and 16, and provides change to the specification, is hereby acknowledged. Claims 1-16 have been examined.

Drawings

2. The amendment presented on 09 October 2008 providing change to the specification is noted. The outstanding objection under 37 CFR 1.84 is hereby withdrawn. The outstanding objection under 37 CFR 1.83 is hereby maintained and recited again below and the rationale is further extrapolated upon.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show inbound and outbound socket connections as one of ordinary skill in the art would understand them, are displayed in a manner contradictory to the commonly accepted definition, and provide no further indication as to how they should be understood (Figures 8 and 9). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. See MPEP § 608.02(d). Applicant consistently identifies the socket connections via the terms "inbound" and "outbound" from what appears to be a static perspective of the PC (Applicant submitted specification: [0072]-[0077]). The examiner, however, is further confused by the

lexicography of applicant, based on interpretations of Figures 8 and 9. At the top of Figure 8, applicant has the "outbound socket connection" going from the PC outbound port to the NetMIC's inbound port. This would be correct in accordance to the proposed applicant definition of "outbound socket connection". However, the "inbound socket connection" goes from the NetMIC's inbound port to the PC's inbound port. Shouldn't the "inbound socket connection" be going from the NetMIC's outbound port to the PC's inbound port? Then, at the bottom of Figure 8, applicant has the "outbound socket connection" going from the PC's outbound port to the NetMIC's inbound port. Again, this in accordance with applicant's own lexicography. However, the "inbound socket connection" is mysteriously going from the PC's inbound port to the NetMIC's inbound port. The examiner is baffled by this sudden switch in direction and port association. Why is the "inbound socket connection", according to the perspective of the PC, not going from the NetMIC's outbound port to the PC's inbound port? In Figure 9, there is no arrow surrounding the top "outbound socket connection", leaving any potential for ultimate clarification by the wayside. Then, much like Figure 8, the "inbound socket connection" at the bottom of Figure 9 has suddenly switched directions. Further confusion results from the fact that socket connections are inherently bidirectional.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) to correct the confusion of these drawings are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being

amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. **No new matter should be added to the replacement drawings. The objection to the drawings will not be held in abeyance.**

Specification

4. The amendment presented on 09 October 2008, providing a replacement specification and change to the abstract, is noted. All prior objections to the specification and abstract are hereby withdrawn.

Claim Objections

5. The amendment presented on 09 October 2008 providing change to the claims is noted. All prior objections to the claims are therefore obviated and hereby withdrawn. New objections may appear below.

6. Claim 9 is objected to under 37 CFR 1.75(c) as being an improper dependent claim because it does not refer back to a previous and currently presented claim. For purposes of further examination, this claim will be treated with assumed dependence upon claim 7. Appropriate correction is required.

7. Claims 1, 7 and 16 are objected to because of improper grammar. Appropriate correction is required.

Regarding claim 1, the phrase "...the host computer, these being," has an extra comma at the end.

Regarding claim 7, the phrase "the analog signal output terminal comprises at least;" has a semicolon at the end, when it should be a colon. Furthermore, the phrase "establishing two connections that is" should have a comma between "two connections" and "that is".

Regarding claim 16, the preamble states a "system according to any claim 7". The word "any" should be removed.

Claim Rejections - 35 USC § 112

8. The amendment presented on 09 October 2008 providing change to claims 1 and 7 is noted. The rejections to the claims are hereby maintained and recited again below.

9. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 7, lines 9 and 19 start limitations that refer to inbound and outbound socket connections. Applicant has two options to define the term "inbound socket connection" and "outbound socket connection". The first is to consistently use the terms from a static perspective of the system. In such a case, the host computer will send data to the analog signal input terminal via the outbound socket connection, and will receive data from the analog signal input terminal via the inbound socket connection. The analog signal input terminal will consequently be sending data to the host computer via the inbound socket connection and receiving data from the host computer via the outbound socket connection. The second option, which is consistent with art accepted terminology, is to refer to the socket from the perspective of the device in which the socket resides. In such a case, the host computer will send data to the analog signal input terminal via its outbound socket connection, and will receive data from the analog signal input terminal via its inbound socket connection. The analog signal input terminal will consequently send data to the host computer via its outbound socket connection, and receive data from the host computer via its inbound socket connection. Correction is required in regards to above requested clarification and the phrases "to and from". For instance, claim 1, line 19, claims the host computer has an inbound socket connection to the analog signal terminal. Yet in claim 7, line 9, the analog signal terminal has an inbound socket connection to the host computer, and then in line 19, the host computer has an inbound socket connection to the analog signal

terminal. Therefore, it is unclear whether the naming convention is from a static perspective or a dynamic perspective.

Regarding claims 2-6 and 8-16, these claims inherit the indefiniteness of their parent claims.

Response to Arguments

10. Applicant's arguments, filed 09 October 2008, have been fully considered but they are not persuasive.

Independent claims 1 and 7

Applicant argues that the combined teachings of Chen (US 2004/0039462), Quinton ("An Introduction to Socket Programming"), and Kawai et al (US 6,137,485) do not render these claims as being obvious because they do not teach a limitation. Specifically, the combined teachings do not teach "establishment of inbound and outbound socket connections to reduce delays in data transmission by allocated 2 separate ports for inbound and outbound transmission."

The examiner respectfully disagrees, as it is noted that the features upon which applicant relies (i.e., separate port associations for inbound versus outbound data flow) are not recited in the rejected claim(s). Although the claims are interpreted in light of

the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore, applicant's arguments are unpersuasive and the rejections of these claims are hereby maintained.

Dependent claims 2-6 and 8-16

Applicant argues these claims conditionally on that of their parent independent claims.

Applicant's arguments are unpersuasive and, therefore, the rejections of these claims are hereby maintained, where appropriate.

Claim Rejections - 35 USC § 103

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 2004/0039462 A1), and further in view of Quinton ("An Introduction to Socket Programming", 1997), and Kawai et al (US 6,137,485).

Regarding claim 1, Chen teaches an analog input system that uses an analog signal input terminal (Chen: Figure 2, item 28 depicts analog mic input terminal as an option)

to convert an analog signal into a digital signal and send the converted digital signal to a host computer via a network (Chen: Figure 3 depicts the sound card for receiving digital signals; Figure 7 depicts the wireless mic; Figure 6 depicts a device that handles both input and output analog processing; See also [0021] and abstract), wherein

the analog signal input terminal (Chen: Figure 7, item 29 depicts the mic adapter) comprises:

an analog signal input unit (Chen: Figure 7, item 80 depicts the analog input port);

an A/D converter for converting the analog signal into a digital signal (Chen: Figure 7, item 82);

a network controller for controlling data transmission and reception (Chen: Figure 7, item 86);

a terminal-side connection establishing unit for establishing two connections with the host computer, these being an inbound connection and an outbound connection (Chen: Figure 7, items 85 and 86; Figure 6, items 78 and 74; See also [0027] which provides for bidirectional communication between the device and the host sound card);

a control signal processing unit for receiving control signals from the host computer (Chen: [0027] provides for receiving control signals from the host computer);

a signal transmitting unit for sending digital signals (Chen: Figure 7, items 85 and 86; Figure 6, items 75 and 78; See also [0027]); and wherein

the host computer comprises at least:

a network adapter for controlling data transmission and reception (Chen: Figure 3, items 46 and 40);

a host-side connection establishing unit for establishing two connections, that is, an inbound connection and an outbound connection to and from the analog signal input terminal (Chen: Figure 3, item 46 depicts a transceiver which inherently transmits and receives; Figure 6 and [0027] provide the remote device can handle inbound and outbound data, providing the host can as well);

a control signal processing unit for sending control signals (Chen: Figure 3, items 44 and 48);

an application processing unit for executing an application and allowing the application to use the said digital signals (Figure 3, items 24 and 30; See also [0018]).

Chen does not teach wherein the connections are with the Internet Protocol using sockets. Nor does Chen teach wherein the control signals are related to at least a start request and a stop request. Nor does Chen teach wherein the digital signals are transmitted based on received control signals. Nor does Chen teach wherein the host computer has an IP connection disconnecting unit for disconnecting the inbound socket connection and the outbound socket connection.

Quinton, in a similar field of endeavor, teaches wherein the connections are over IP and use sockets (Quinton: pg 1, introduction) and wherein the host computer has an IP connection disconnecting unit for disconnecting the inbound socket connection and outbound socket connection (Quinton: pg 11, line 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Quinton for communication with IP sockets. The teachings of Quinton, when implemented in the Chen system, will allow one of ordinary skill in the art to communicate to the remote devices using IP packets and reading/writing sockets. One of ordinary skill in the art would be motivated to utilize the teachings of Quinton in the Chen system in order to use a widely accepted and compatible standard.

The Chen/Quinton system does not teach wherein the control signals are related to at least a start request and a stop request. Nor does the Chen/Quinton system teach wherein the digital signals are transmitted based on received control signals.

Kawai, in a similar field of endeavor, teaches wherein the control signals are related to at least a start request and a stop request (Kawai: col 11, line 53-65; See also Figures 15A and 15B) and wherein the digital signals (Kawai's video transmission) are transmitted based on received control signals (Kawai: col 11, line 53 – col 12, line 28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Kawai for using control signals. The teachings of Kawai, when implemented in the Chen/Quinton system, will allow one of ordinary skill in the art to control processing and transmission of the remote devices. One of ordinary skill in the art would be motivated to utilize the teachings of Kawai in the Chen/Quinton system in order to manage traffic on the network.

Regarding claim 2, the Chen/Quinton/Kawai system teaches wherein:

the terminal-side IP connection establishing unit in the analog signal input terminal (Quinton: server-side) establishes (accepts) an inbound socket connection (socket connection) from the host computer (Quinton: client) when the terminal-side IP connection establishing unit detects an outbound socket connection (connect request) from the host computer (Quinton: pgs 8-11 describe typical client/server type socket functions, including listening/detecting a client connection and accepting/binding/establishing the connection).

the host-side IP connection establishing unit in the host computer establishes an outbound socket connection to the analog signal input terminal (This is a limitation in claim 1; Same rejection rationale applies).

Regarding claim 3, the Chen/Quinton/Kawai system teaches wherein the analog signal input terminal is provided with a microphone, an output signal from which is input into the analog signal input unit (Chen: Figure 7, item 28 into item 80).

Regarding claim 4, the Chen/Quinton/Kawai system teaches wherein the network is a wireless communication network (Chen: abstract); and

wherein the network controller and network adapter are compatible with the wireless communication network (Chen: abstract; Figure 2).

Regarding claim 7, this claim comprises limitations found within claim 1 and the same rationale of rejection is used, where applicable, and wherein:

the system is an analog output system in which a digital signal is sent from a host computer to an analog signal output terminal through a network and the analog signal output terminal converts the digital signal into an analog signal and then outputs the analog signal (Chen: Figure 5), wherein the analog signal output terminal comprises at least:

a signal receiving unit for receiving digital signals according to the control signals (Chen: Figure 5, items 150 and 154);

a D/A converter for converting the digital signals into analog signals (Chen: Figure 5, items 158);

an output unit for outputting the analog signals (Chen: Figure 5, items 160 and 164); and wherein the host computer comprises at least:

a signal transmitting unit for sending the generated digital signal (Chen: Figure 3, item 46).

Regarding claim 8, this analog signal output system claim comprises limitations corresponding to those found within claim 2 and the same rationale of rejection is used, where applicable.

Regarding claim 10, the Chen/Quinton/Kawai system teaches wherein a speaker is provided on the analog signal output terminal (Chen: abstract; Figure 2); and

wherein an output signal from the output unit is generated as voice from the speaker (Chen: abstract; Figure 2).

Regarding claim 11, this analog signal output system claim comprises limitations corresponding to those found within claim 4 and the same rationale of rejection is used, where applicable.

13. Claims 5-6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 2004/0039462 A1), in view of Quinton ("An Introduction to Socket Programming", 1997) and Kawai et al (US 6,137,485), and in further view of Yamauchi (US 5,896,099).

Regarding claim 5, the Chen/Quinton/Kawai system teaches wherein the network uses the UDP to include an IP packet, at the time of the IP connection, in a UDP packet (Quinton: pg 1, introduction provides for UDP/IP); and

wherein a header field is in the UDP protocol for transmission (Quinton: pg 1, introduction provides for UDP, which inherently has header fields).

The Chen/Quinton/Kawai system does not teach wherein characteristic information data related to the signal contents of the digital signal retrieved is included in a header field.

Yamauchi, in a similar field of endeavor, teaches wherein characteristic information data related to the signal contents of the digital signal retrieved is included in a header field (Yamauchi: col 2, lines 47-65 provide for headers with sampling rates).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Yamauchi for inserting metadata information into the header. The teachings of Yamauchi, when implemented in the Chen/Quinton/Kawai system, will allow one of ordinary skill in the art to insert metadata into the optional fields of a UDP packet. One of ordinary skill in the art would be motivated to utilize the teachings of Yamauchi in the Chen/Quinton/Kawai system in order to easily identify how to decode the information.

Regarding claim 6, the Chen/Quinton/Kawai/Yamauchi system teaches wherein the analog signal is a voice signal (Yamauchi: col 3, lines 08-21); and

wherein the characteristic information data is at least any one of a voice level, a sampling rate, and the number of bits per sample (Yamauchi: col 2, lines 47-65).

Regarding claim 12, this analog signal output system claim contains limitations corresponding to that of claim 5, and the same rationale of rejection is used, where applicable.

Regarding claim 13, this analog signal output system claim contains limitations corresponding to that of claim 6, and the same rationale of rejection is used, where applicable.

14. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 2004/0039462 A1), in view of Quinton ("An Introduction to Socket Programming", 1997) and Kawai et al (US 6,137,485), and in further view of Poon et al ("Performance of buffer-based request-reply scheme for VoD streams over IP networks", 2000).

Regarding claim 9, the Chen/Quinton/Kawai system does not teach wherein:

the analog signal output terminal has a buffer area and a data requesting unit, the data requesting unit sending a data transmission request signal according to a storage capacity of the buffer area; and

the signal transmitting unit in the host computer sends a digital signal according to the transmission request signal.

Poon, in a similar field of endeavor teaches wherein the analog signal output terminal has a buffer area and a data requesting unit, the data requesting unit sending a data transmission request signal according to a storage capacity of the buffer area (Poon: pg 230, section 2); and

the signal transmitting unit in the host computer sends a digital signal according to the transmission request signal (Poon: pg 230, section 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Poon for using a buffer-based client pull method. The teachings of Poon, when implemented in the Chen/Quinton/Kawai system, will allow one of ordinary skill in the art to control the amount and rate of content being sent to the remote devices from the host computer. One of ordinary skill

in the art would be motivated to utilize the teachings of Poon in the Chen/Quinton/Kawai system in order to prevent receiver buffer overflow or underflow, which would result in corrupt data or delay in media playback.

15. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 2004/0039462 A1), in view of Quinton ("An Introduction to Socket Programming", 1997) and Kawai et al (US 6,137,485), and in further view of Zdepski et al ("Statistically Based Buffer Control Policies for Constant Rate Transmission of Compressed Digital Video", June 1991) and Jo et al ("Synchronized one-to-many media streaming with adaptive playout control", 10 December 2002).

Regarding claim 14, the Chen/Quinton/Kawai system teaches wherein a signal converter is a D/A converter (Chen: Fig. 3, item 47); and

wherein the output unit outputs analog signals (Chen: abstract).

The Chen/Quinton/Kawai system does not teach wherein the analog signal output terminal further comprises:

a buffer with a prescribed capacity, which is used to store digital signals received by the signal receiving unit;

at least a monitoring unit for monitoring an amount of digital signals stored in the buffer or a remaining capacity of the buffer; and

a synchronization control unit for changing a sampling clock in the converter according to either the amount of digital signals stored or the remaining capacity; and

wherein the played-back signals are synchronized.

Zdepski, in a similar field of endeavor, teaches further comprising:

a buffer with a prescribed capacity, which is used to store digital signals received by the signal receiving unit (Zdepski: abstract provides choosing a mode based on various criterion; pg 952, RHS #2; See also Fig. 8);

at least a monitoring unit for monitoring an amount of digital signals stored in the buffer or a remaining capacity of the buffer (Zdepski: pg 952, RHS #2; Fig. 8; pg 949, Fig 4, adaptive rate control unit); and

a synchronization control unit for changing a sampling clock in the converter according to either the amount of digital signals stored or the remaining capacity (Zdepski: pg 949, Fig 4, adaptive rate control unit; pg 949, LHS).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Zdepski for using a variable sampling rate signal converter based on buffer occupancy. The teachings of Zdepski, when implemented in the Chen/Quinton/Kawai system, will allow one of ordinary skill in the art to adjust the sampling rates of DACs based on receiver buffer occupancy. One of ordinary skill in the art would be motivated to utilize the teachings of Zdepski in the Chen/Quinton/Kawai system in order to prevent buffer over- or underflow, thereby optimizing system resources.

The Chen/Quinton/Kawai/Zdepski system does not teach wherein the output unit outputs synchronized analog signals.

Jo, in a similar field of endeavor, teaches wherein the played-back signals are synchronized (Jo: abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Jo for synchronizing playback of audio. The teachings of Jo, when implemented in the Chen/Quinton/Kawai/Zdepski system, will allow one of ordinary skill in the art to synchronize playback of multiple analog signals. One of ordinary skill in the art would be motivated to utilize the teachings of Jo in the Chen/Quinton/Kawai/Zdepski system in order to ensure the end-user does not experience perceive timing differences between signals.

Regarding claim 15, the Chen/Quinton/Kawai/Zdepski/Jo system teaches wherein the analog output system has two or more analog signal output terminals for one host computer (Chen: Figure 1; Figure 2 both FL and FR speakers); wherein two or more types of voice data, including right and left stereo channel voice data, are output to each analog signal output terminal (Chen: Figure 2, items 34; [0004]); and wherein the voice outputs from the two or more analog signal output terminals are mutually synchronized by a function of the synchronization control unit (Jo: abstract).

16. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 2004/0039462 A1), in view of Quinton ("An Introduction to Socket Programming", 1997) and Kawai et al (US 6,137,485), and in further view of Official Notice.

Regarding claim 16, the Chen/Quinton/Kawai system teaches operating an output mode on the analog signal output terminal is provided on the network (Chen: abstract);

the host computer and other network devices are connected through socket connections (Chen: abstract; Quinton: introduction) that are different that other socket connections based on the service and port (Quinton: pg 5-6); and a host computer sending control signals via a control signal processing unit (Chen: Fig 3, processors).

The Chen/Quinton/Kawai system does not teach wherein the other device is a remote operation terminal for remotely operating the analog signal output terminal; wherein the remote operation terminal sends a remote operation signal to the host computer, and the control signal sent by the host computer is based on the received remote operation signal.

An official notice is taken that such use of remote controls for controlling operations of a playback device (for example, a TV) via an intermediary device (for example, a STB) was well known in the art at the time the invention was made by one of ordinary skill in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize any known playback device control operation technique including using a remote control because it would have enabled practicing the Chen/Quinton/Kawai system.

Cited Pertinent Prior Art

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Stiltner et al (US 5,367,301) discloses embedding metadata in header fields.

b. MDOT ("Edward N. Hines (1870-1938)", 19 September 2005) discloses that Edward N. Hines invents and puts into public use the centerline of roadways in 1911, thereby splitting traffic based on flow direction.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY NICKERSON whose telephone number is (571)270-3631. The examiner can normally be reached on M-Th, 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. N./
Jeffrey Nickerson
Examiner, Art Unit 2442

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2442